

REMARKS

The Section 112 Rejection.

Section 112 requires that the specification (which includes the claims as filed) meet three independent requirements, i.e., the “written description requirement”, the “enablement requirement” and the “best mode requirement”. Here the examiner has conceded that the specification “disclosure as a whole is such as to enable one skilled in the art to make and use the claimed invention”. *Univ. of Rochester v. G.D. Searle & Co.*, 358 F.3d 916, 921 (Fed. Cir. 2004). Here, the examiner has conceded that the specification sets forth “the best mode contemplated by the inventor for carrying out that [i.e., the claimed] invention.” *Id.*

Claims 1-28 and 35-39 are rejected as failing to comply with the written description requirement, the test for which is “whether the subject matter defined in the claims is described in the specification” or whether the claims “are broader than the applicant’s disclosure” *Searle, supra*, at 921, 923. Reconsideration and withdrawal of the rejection is solicited.

The Abstract of the specification describes “**An article** useful as gemstone or decorative object” and the specification concludes with the statement that “the present invention has provided a novel **article of manufacture** that is of great utility as a synthetic gemstone or decorative object” (col. 6, lines 7-9; emphasis added). Claim 1 as filed was directed to an “**article of manufacture**”, not to a gemstone or to a decorative object. The “**article of manufacture**” is functionally claimed in Claim 1 as having “a size and shape suitable for use as a decorative object, gemstones and ornaments.” (col. 6,

lines 12-14). It is not clear whether the Office ignored this functional recitation as a statement of intended purpose, or whether the functional recitation was considered a limitation so that “articles of manufacture” not “suitable” will not fall within the scope of Claim 1. In either event, it is clear that the claimed invention is an article of manufacture, not a “decorative object, gemstone or ornament.”

Assuming *arguendo* that the functional recitation is a limitation, one example of “an article” meeting this functional limitation is illustrated in Figure 1 as a solid “formed with cut and polished facets.” (col. 5, line 19). A second example of “an article” meeting this claimed function is described in connection with Figure 2 as being “in the shape of a turtle.” (col. 5, lines 45-46). A third example of “an article” meeting this claimed function is described in connection with Figure 3 as a “flat glass.” (col. 5, line 41). Thus the specification describes three specific examples of “an object” meeting the functional limitation of the claims.

However, the described invention is not limited to these three specific examples. This is an invention where the generic invention is described as a “substrate” that has been “previously formed to the desired final shape.” (col. 3, lines 25-27) which may be of any material “capable of being formed into a desired shape” (col. 4, lines 44-45). This is not a chemical invention where there may be species within the scope of the generic language of the claims which are inoperative. As described in the specification, any “substrate” that has been “formed to the desired shape” is operative as a substrate. If the examiner asserts otherwise, applicant requests that he so state.

It has long been the law in mechanical and electrical inventions that a disclosed species will support claims directed to the genus as well as the disclosed species, and it is not understood why the examiner asserts otherwise. In other words, the examiner agrees that the applicant may generically claim “an article” that is “formed into a desired shape” and specifically claim articles that have been formed into a shape is “faceted” or “a turtle” or “flat.” If the examiner asserts that the applicant may not specifically claim an article formed into the shape of a “kangaroo” or “vase” or “frog” because those articles have not been specifically described so that the claims cannot be read on the disclosure, such position has no applicability to the present claims each of which can be read on the disclosure.

As to Claim 1 (and Claims 2-12 dependent therefrom), the described “turtle” is a “non-functional ornament,” and thus Claim 1 may be read on the disclosure. As to Claim 13 (and Claims 14-16 dependent therefrom), the “turtle” has a “curved surface and at least two dimensions of substantially the same proportion,” i.e., a turtle has substantially the same length and width and thus Claim 13 may be read on the disclosure. As to Claim 17 (and Claims 18-21 dependent therefrom) and Claim 28, the disclosed “gemstone” has a “a height, width and depth dimension of substantially the same proportion (see Figure 1), and thus Claim 17 and Claim 28 may be read on the disclosure. As to Claim 22 (and Claims 23-26 dependent therefrom), the “gemstone” has a “a depth dimension of substantially the same proportion as its height or width proportion” (see Figure 1), and thus Claim 22 may be read on the disclosure. As to Claim 27, the “turtle” has “two non-

parallel curved surfaces” e.g., the surfaces of its top and bottom shell, and Claim 27 may be read on the disclosure.

As stated is *Searle, supra*, at 922-23, “[T]his court and its predecessor have repeatedly held that claimed subject matter ‘need not be described *in haec verba*’ in the specification to satisfy the written description requirement [citations omitted].” It is also the law that the disclosure of the drawings and claims may be incorporated into the written description. For example, applicant could introduce into the written description a description of the brilliant cut gemstone illustrated in Figure 1, e.g., a gem that is approximately the same dimension in at least two, preferably three, orthogonal directions with a generally circular cross-section.

The examiner expressly states that the disclosure of Figure 1 is limited to a cubic zirconium dioxide, and that the shape of a “turtle” is limited to lead crystal glass. It is noted that the examiner has cited no authority whatsoever for this novel proposition, with respect to the use of substrate materials other than cubic zirconium dioxide and lead crystal glass. Should the examiner persist in this patently untenable position, applicant requests both the citation of the authority on which the examiner relies and a telephone call to arrange an interview with the examiner’s supervisor Paul J. Thibodeau.

The Prior Art Rejection.

Claims 1-16, 27 and 29-36 are rejected as obvious over Hettich in view of Austin, with the examiner asserting:

1. that Hettich et al. disclose coating substrates with a uniform reflective coating, but acknowledging the failure to disclose (i) coating a curved, non-planar, or

complex-shaped substrate, and (ii) coating substantially the entire surface of the substrate;

2. that Austin discloses coating substantially the entire surface of sunglasses and spectacles which are deemed to be curved, non-planar and complex-shaped substrates; and

3. that it would have been obvious to one of ordinary skill in view of the teaching of Austin to coat substantially the entire surface of the substrates disclosed in Hettich et al.

Applicant has argued that the rejection is improper and must be withdrawn because of the lack of any teaching in Austin which suggests the modification of the Hettich et al. structure. Hettich et al. discloses coating substrates with a reflective coating to form high efficiency reflectors. There is no disclosure or suggestion in Hettich et al. of coating substrates to form any objects other than high efficiency reflectors having a uniform reflective coating, and no disclosure or suggestion of coating a curved, non-planar, or complex-shaped substrate, and coating substantially the entire surface of a substrate of any shape. Moreover, there is no disclosure or suggestion that it would be desirable or appropriate to coat any substrate with an **anti**-reflective coatings.

Austin discloses coating sunglasses with an **anti**-reflective coating. There is no suggestion or motivation in Austin regarding the coating of any objects other than sunglasses and spectacles with a coating other than an anti-reflective coating.

The examiner concedes that the motivation is not provided by the cited references, and asserts that the motivation may come from “knowledge generally available.”

However, the examiner has not identified the generally available knowledge on which he relies nor has he cited any source of such unidentified knowledge. Applicant is not aware of any “knowledge” which may be relevant to the use of anti-reflective coatings to modify reflective coatings and requests that the rejection be withdrawn. Should the examiner persist in this rejection, applicant requests that the examiner specifically identify in detail the “knowledge” on which he relies, and either cite the source thereof or submit a declaration of personal knowledge.

Applicant has previously pointed out that each of the claims is directed to an article having a curved surface, or a non-planar article, or a complex-shaped article, and methods of making such articles, that include, *inter alia*, a limitation regarding the extent of the coverage of the coating on the coated surface that is neither disclosed nor suggested in either of the cited patents. The examiner asserts that Austin’s substrates are complex and that reflectors are not necessarily flat. The examiner has not even addressed the extent of coverage of Austin’s coatings.

Hettich et al. discloses coating substrates with a reflective coating to form high efficiency reflectors. There is no disclosure or suggestion in Hettich et al. of coating substrates to form any objects other than high efficiency reflectors having a reflective coating, and no suggestion that it would be possible or appropriate to use any **anti-reflective** coatings. Assuming *arguendo* that Austin’s articles are complex¹ and that

¹ The examiner has not provided any factual basis for “deeming” that Austin’s spectacles have non-parallel surfaces.

Hettich et al reflectors are curved², there is still no motivation to use anti-reflective coatings on a reflector and no disclosure in either patent that the coating should cover the entire object.

The examiner's reliance on Austin (col. 5, lines 60-65) as disclosing an article or method in which substantially the entire surface of the article is coated is in error. Austin discloses that the plot illustrated in FIG. 5 was obtained by coating a glass "sheet" (i.e., an article having planar surfaces), and that the coating was deposited on each surface of the glass "sheet". However, there is no disclosure of the extent to which each surface of the glass sheet is coated. *A fortiori*, there is no disclosure whatsoever of the extent to which the surfaces of an article having a curved surface, or a non-planar article, or a complex-shaped article are coated.

It is noted that Claims 17 – 26 and 28 are free of the art.

Reconsideration and withdrawal of the rejection is solicited.

The Newly Added Claims.

Claims 40-48 are newly submitted. No new matter has been introduced. The newly added claims are free of the art and should be allowed.

² The examiner has not provided any factual basis for his blithe assertion that the Hittich et al reflectors are curved.

A further and favorable action and allowance of all claims is solicited.

Respectfully submitted,



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